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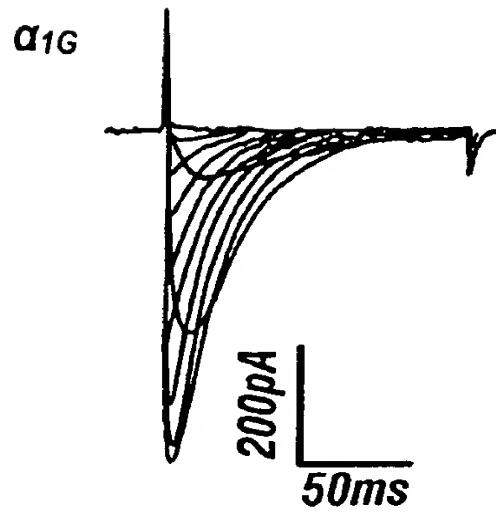


FIG. 1A

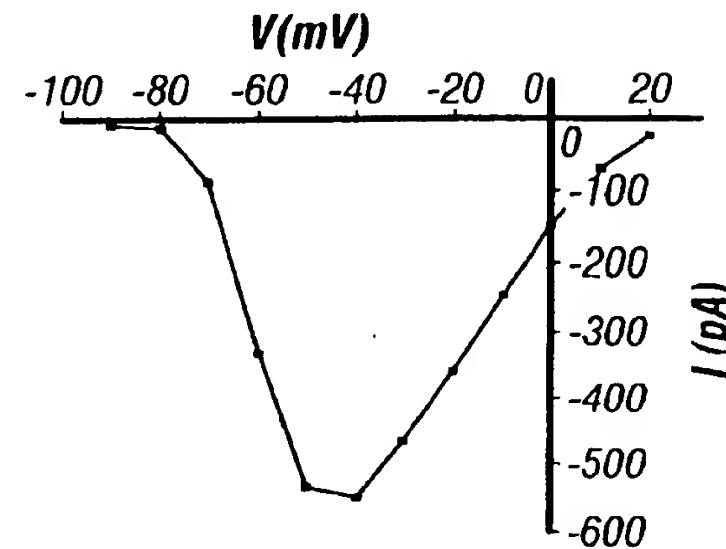


FIG. 1B

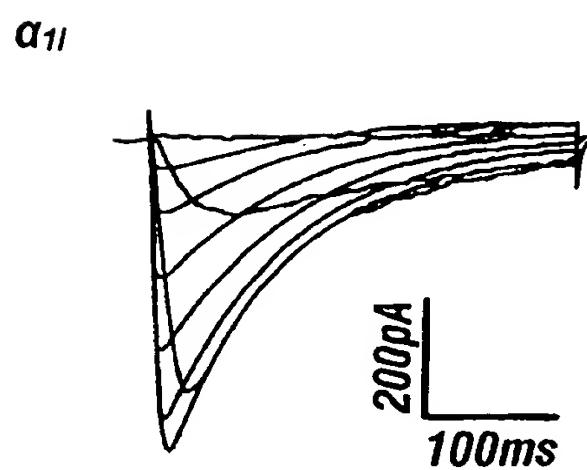


FIG. 2A

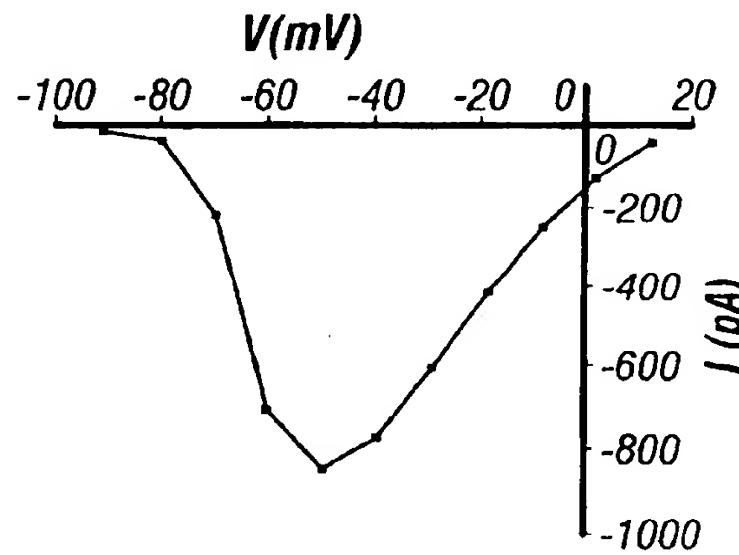
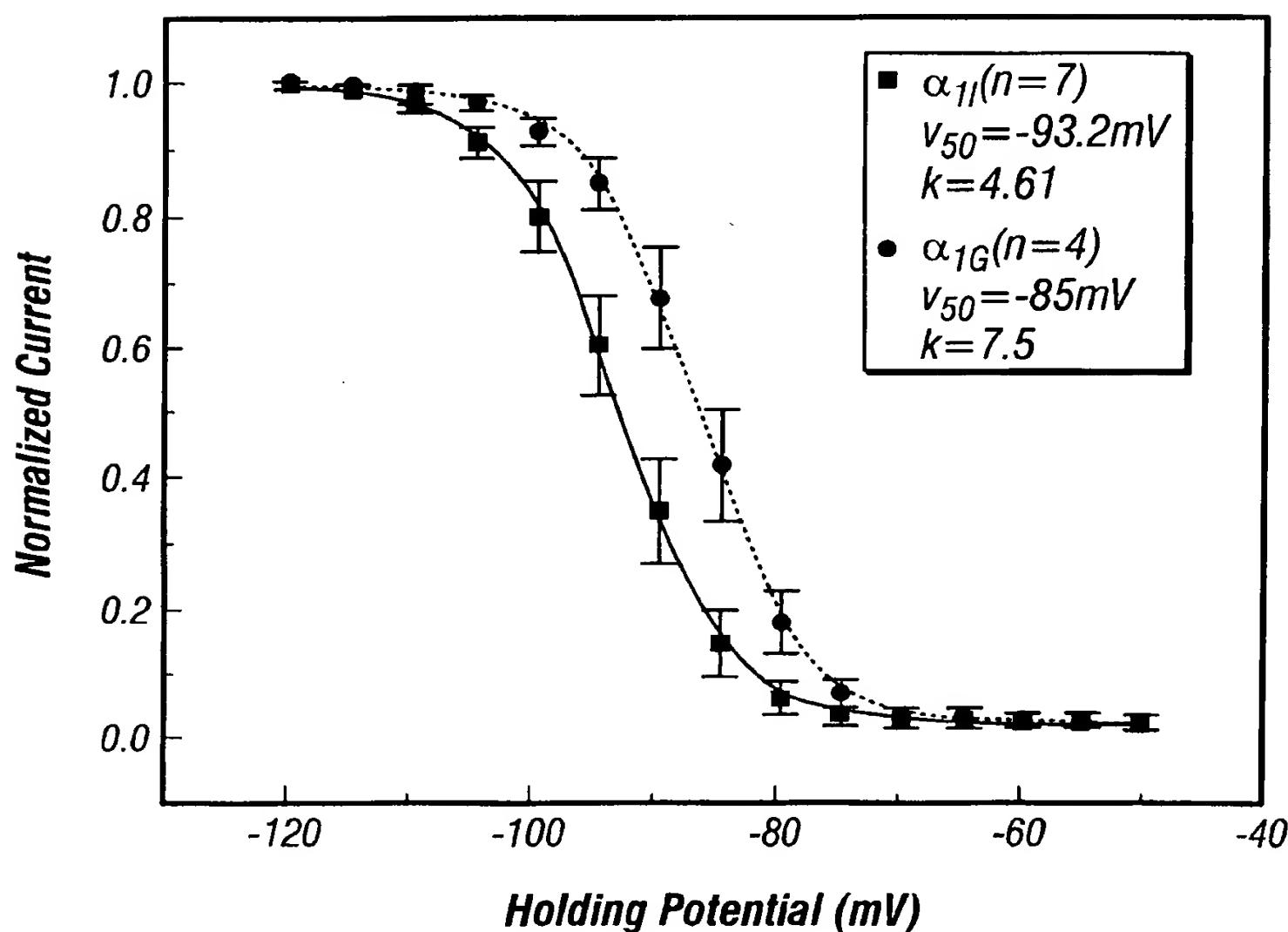


FIG. 2B

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Steady-state Inactivation**FIG. 3**

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Deactivation

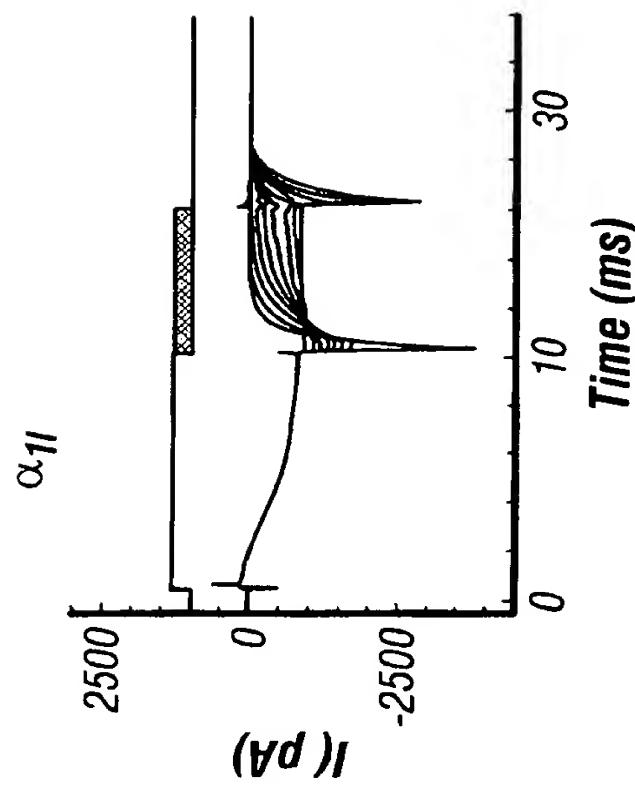


FIG. 4B

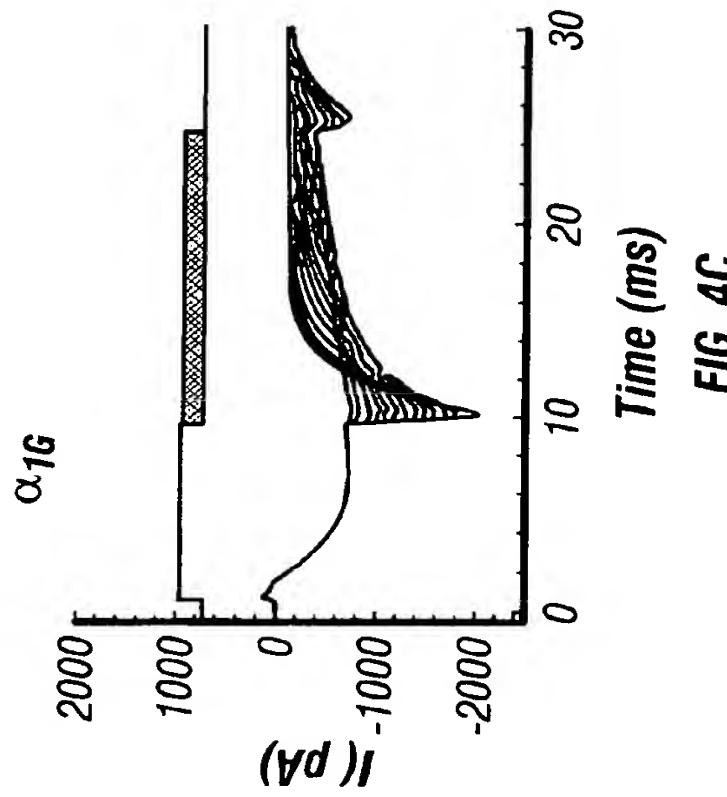


FIG. 4C

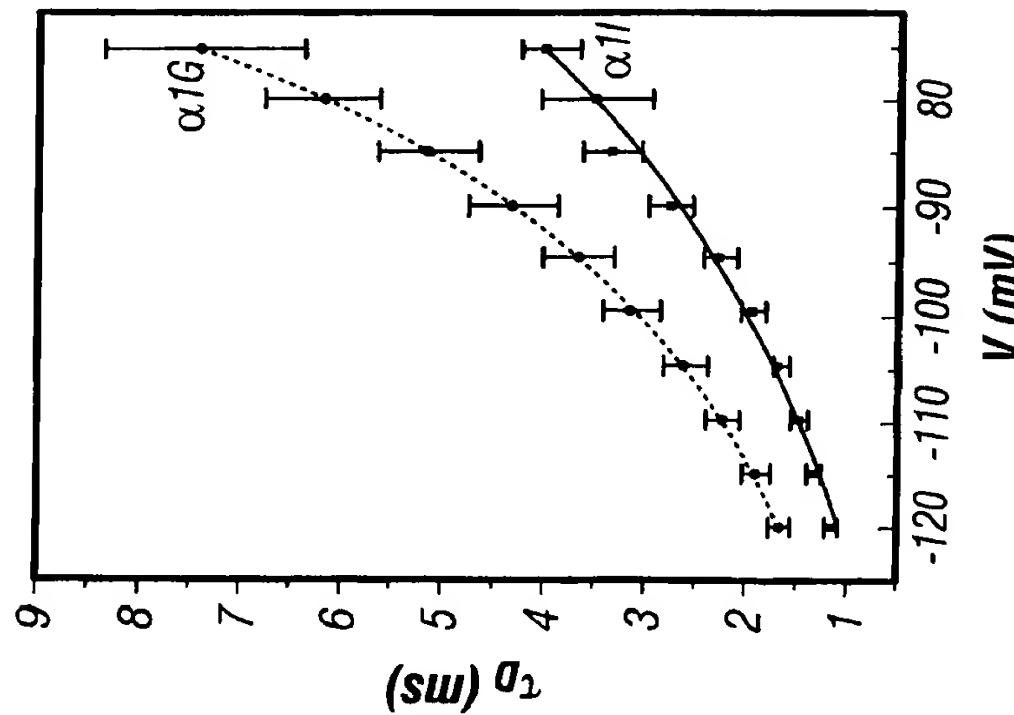


FIG. 4A

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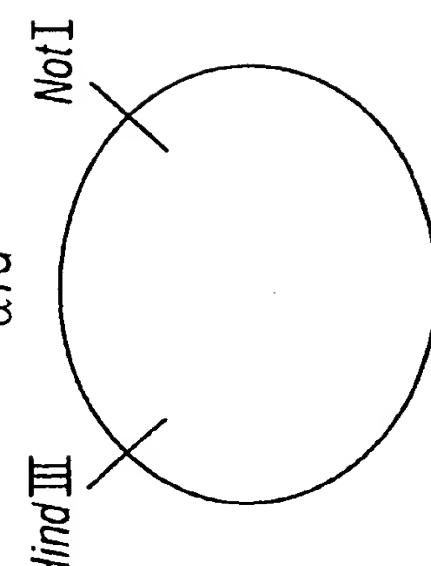
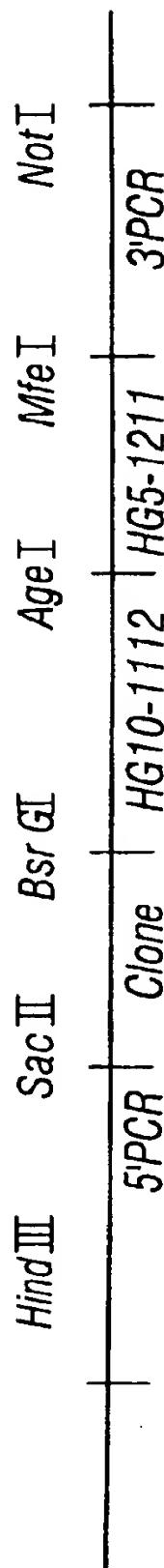
*α1G cDNA Construct*

FIG. 5A

pcDNA 3.1 Zeo (+)

5'PCR-291 bp

Clone 1- 1933 bp

HG10-1112-3915 bp

HG5-1211-3984 bp

3'PCR-1617 bp

α1G cDNA Clones

FIG. 5B

Human α_1G T-Type Calcium Channel cDNA

(SEQ ID NO:36)

	(SEQ ID NO:37) M D E E E D G																				
1	aaggcttgcttgc	cc	cc	ttccggatc	ccccggggccccggctggccaggagg	ATG	GAC	GAG	GAG	GAT	GGA	71									
72	GCG	GCC	GAG	GAC	TCG	GGG	CAG	CCC	CGG	AGC	TTC	ATG	CGG	CTC	AAC	GAC	CTG	TCG	GGG	131	
8	A	G	A	E	E	S	G	Q	P	R	S	F	M	R	L	N	D	L	S	G	27
132	GCC	GGC	GGG	CGG	CCC	GGG	CCG	GGG	TCA	GCA	GAA	AAG	GAC	CCG	GGC	AGC	GCG	GAC	TCC	GAG	191
28	A	G	G	R	P	G	P	G	S	A	E	K	D	P	G	S	A	D	S	E	47
192	GCG	GAG	GGG	CTG	CCG	TAC	CCG	GCG	CTG	GGC	CCG	GTG	GTG	CGG	CTG	GCC	GGC	AGC	CAG	GAC	251
48	A	E	G	L	P	Y	P	A	L	A	P	V	V	F	F	Y	L	S	Q	D	67
252	AGC	CGC	CGG	GGG	AGC	TGG	TGT	CTC	CGC	ACG	GTC	TGT	AAC	CCC	TGG	TTT	GAG	CGC	ATC	AGC	311
68	S	R	P	R	S	W	C	L	R	T	V	C	N	P	W	F	E	R	I	S	87
312	ATG	TTG	GTC	ATC	CTT	CTC	AAC	TGG	GTG	ACC	CTG	GGC	ATG	TTC	CGG	CCA	TGC	GAG	GAC	ATC	371
88	M	L	V	I	L	L	N	C	V	T	L	G	M	F	R	P	C	E	D	I	107
372	GCC	TGT	GAC	TCC	CAG	CGC	TGC	CGG	ATC	CTG	CAG	GCC	TTT	GAT	GAC	TTC	ATC	TTT	GCC	TTC	431
108	A	C	D	S	Q	R	C	R	I	L	Q	A	F	D	D	F	I	F	A	F	127
432	TTT	GCC	GTG	GAG	ATG	GTG	GTG	AAG	ATG	GTG	GCC	TTG	GCC	ATC	TTT	GGG	AAA	AAG	TGT	TAC	491
128	F	A	V	E	M	V	V	K	M	V	A	L	G	I	F	G	K	K	C	Y	147
492	CTG	GGA	GAC	ACT	TGG	AAC	CGG	CTT	GAC	TTT	TTC	ATC	GTC	ATC	GCA	GGG	ATG	CTG	GAG	TAC	551
148	L	G	D	T	W	N	R	L	D	F	F	I	V	I	A	G	M	L	E	Y	167
552	TCG	CTG	GAC	CTG	CAG	AAC	GTC	AGC	TTC	TCA	GCT	GTC	AGG	ACA	GTC	CGT	CTG	CTG	CGA	CCG	611
168	S	L	D	L	Q	N	V	S	F	A	V	R	T	V	R	L	R	P	V	187	

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FIG. 6A

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612	CTC	AGG	GCC	ATT	AAC	CGG	GTG	CCC	AGC	ATG	CGC	ATC	CTT	GTC	ACG	TTG	CTG	GAT	ACG	671	
188	L	R	A	I	N	R	V	P	S	M	R	I	L	V	T	L	L	L	D	T	207
672	CTG	CCC	ATG	CTG	GGC	AAC	GTC	CTG	CTG	TGC	TTC	TTC	GTC	TTC	ATC	TTC	GGC	ATC	731		
208	L	P	M	L	G	N	V	L	L	L	C	F	F	V	F	F	I	F	G	I	227
732	GTC	GGC	GTC	CAG	CTG	TGG	GCA	GGG	CTG	CTT	CGG	AAC	CGA	TGC	TTC	CTA	CCT	GAG	AAT	TTC	791
228	V	G	V	Q	L	W	A	G	L	L	R	N	R	C	F	L	P	E	N	F	247
792	AGC	CTC	CCC	CTG	AGC	GTG	GAC	CTG	GAG	CGG	TAT	TAC	CAG	ACA	GAG	AAC	GAG	GAT	GAG	AGC	851
248	S	L	P	L	S	V	D	L	E	R	Y	Y	Q	T	E	N	E	D	E	S	267
852	CCC	TTC	ATC	TGC	TCC	CAG	CCA	CGC	GAG	AAC	GGC	ATG	CGG	TCC	TGC	AGA	AGC	GTG	CCC	ACG	911
268	P	F	I	C	S	Q	P	R	E	N	G	M	R	S	C	R	S	V	P	T	287
912	CTG	CGC	GGG	GAC	GGC	GGC	GGT	GGC	CCA	CCT	TGC	GGT	CTG	GAC	TAT	GAG	GCC	TAC	AAC	AGC	971
288	L	R	G	D	G	G	G	P	P	C	G	L	D	Y	E	A	Y	N	S	307	
972	TCC	AGC	AAC	ACC	TGT	GTC	AAC	TGG	AAC	CAG	TAC	TAC	ACC	AAC	TGC	TCA	GCG	GGG	GAG	1031	
308	S	S	N	T	T	C	V	N	W	N	Q	Y	Y	T	N	C	S	A	G	E	327
1032	CAC	CCC	TTC	AAG	GGC	GCC	ATC	AAC	TTT	GAC	AAC	ATT	GGC	TAT	GGC	TGG	ATC	GCC	ATC	1091	
328	H	N	P	F	K	G	A	I	N	F	D	N	I	G	Y	A	W	I	A	I	347
1092	TTC	CAG	GTC	ATC	ACG	CTG	GAG	GGC	TGG	GTC	GAC	ATC	ATG	TAC	TTT	GTG	ATG	GAT	GCT	CAT	1151
348	F	Q	V	I	T	L	E	G	W	V	D	I	M	Y	F	V	M	D	A	H	367
1152	TCC	TTC	TAC	AAT	TTC	ATC	TAC	TTC	ATC	CTC	ATC	ATC	GTG	GGC	TCC	TTC	ATG	ATC	1211		
368	S	F	Y	N	E	I	Y	F	I	I	L	L	I	V	G	S	F	E	M	I	387

FIG. 6B

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1212	AAC	CTG	TGC	CTG	GTG	GTG	ATT	GCC	ACG	CAG	TTC	TCA	GAG	AAG	CAG	CGG	GAA	AGC	CAG	1271		
388	N	L	C	L	V	V	I	A	T	Q	F	S	E	T	K	Q	R	E	S	Q	407	
1272	CTG	ATG	CGG	GAG	CAG	CGT	GTG	CGG	TTC	CTG	TCC	AAC	GCC	AGC	ACC	CTG	GCT	AGC	TTC	TCT	1331	
408	L	M	R	E	Q	R	V	R	F	L	S	N	A	S	T	L	A	S	F	S	427	
1332	GAG	CCC	GGC	AGC	TGC	TAT	GAG	GAG	CTG	CTG	CTC	AAG	TAC	CTG	GTG	TAC	ATC	CTT	CGT	AAG	GCA	1391
428	E	P	G	S	C	C	Y	E	E	L	L	K	Y	L	V	Y	I	L	R	K	A	447
1392	GCC	CGG	AGG	CTG	GCT	CAG	CAG	GTC	TCT	CGG	GCA	GCA	GGT	GTG	CGG	GTT	GGG	CGT	CTC	AGC	AGC	1451
448	A	R	R	L	A	Q	V	S	R	A	A	G	V	R	V	G	L	L	S	S	467	
1452	CCA	GCA	CCC	CTC	GGG	GGG	CAG	GAG	ACC	CAG	CCC	AGC	AGC	AGC	TGC	TCT	CGC	TCC	CAC	CAC	CGC	1511
468	P	A	P	L	G	G	Q	E	T	Q	P	S	S	C	S	R	S	H	R	487		
1512	CGC	CTA	TCC	GTC	CAC	CAC	CTG	GTG	CAC	CAC	CAC	CAC	CAT	CAC	CAC	CAC	TAC	CAC	CTG	CTG	1571	
488	R	L	S	V	H	H	L	V	H	H	H	H	H	H	Y	H	H	L	507			
1572	GGC	AAT	GGG	ACG	CTC	AGG	GCC	CCC	CGG	GCC	AGC	CCG	GAG	ATC	CAG	GAC	AGG	GAT	GCC	AAT	1631	
508	G	N	G	T	L	R	A	P	R	A	S	P	E	I	Q	D	R	A	N	527		
1632	GGG	TCC	CGG	AGG	CTC	ATG	CTG	CCA	CCA	CCC	TCG	ACG	CCT	GCC	CTC	TCC	GGG	GGC	CCC	CCT	1691	
528	G	S	R	R	L	M	L	P	P	S	T	P	A	L	S	G	A	P	P	547		
1692	GGT	GGC	GCA	GAG	TCT	GTG	CAC	AGC	TTC	TAC	CAT	GCC	GAC	TGC	CAC	TTA	GAG	CCA	GTC	CGC	1751	
548	G	G	A	E	S	V	H	S	F	Y	H	A	D	C	H	L	E	P	V	R	567	
1752	TGC	CAG	GCG	CCC	CCT	CCC	AGG	TCC	CCA	TCT	GAG	GCA	TCC	GGC	AGG	ACT	GTG	GGC	AGC	GGG	1811	
568	C	Q	A	P	P	R	S	P	S	E	A	S	G	R	T	V	G	S	G	587		

FIG. 6C

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1812	AAG	GTG	TAT	CCC	ACC	GTG	CAC	ACC	GGC	CCT	CCA	CCG	GAG	ACG	CTG	AAG	GAG	GCA	GCA	CTA	1871
588	K	V	Y	P	T	V	H	T	S	P	P	P	E	T	L	K	E	K	A	L	607
1872	GTA	GAG	GTG	GCT	GCC	AGC	TCT	GGG	CCC	CCA	ACC	CTC	ACC	AGC	CTC	AAC	ATC	CCA	CCC	GGG	1931
608	V	E	V	A	A	S	S	G	P	P	T	L	T	S	L	N	I	P	P	G	627
1932	CCC	TAC	AGC	TCC	ATG	CAC	AAG	CTG	CTG	GAG	ACA	CAG	AGT	ACA	GGT	GCC	TGC	CAA	AGC	TCT	1991
628	P	Y	S	S	M	H	K	L	E	T	Q	S	T	G	A	C	Q	S	S	S	647
1992	TGC	AAG	ATC	TCC	AGC	CCT	TGC	TTG	AAA	GCA	GAC	AGT	GGA	GCC	TGT	GGT	CCA	GAC	AGC	TGC	2051
648	C	K	I	S	S	P	C	L	K	A	D	S	G	A	C	G	P	D	S	C	667
2052	CCC	TAC	TGT	GCC	CGG	GCC	GGG	GCA	GGA	GAG	GTG	GAG	CTC	GCC	GAC	CGT	GAA	ATG	CCT	GAC	2111
668	P	Y	C	A	R	A	G	A	G	E	V	E	L	A	D	R	E	M	P	D	687
2112	TCA	GAC	AGC	GAG	GCA	GTT	TAT	GAG	TTC	ACA	CAG	GAT	GCC	CAG	CAC	AGC	GAC	CTC	CGG	GAC	2171
688	S	D	S	E	A	V	Y	E	F	T	Q	D	A	Q	H	S	D	L	R	D	707
2172	CCC	CAC	AGC	CGG	CGG	CAA	CGG	AGC	CTG	GGC	CCA	GAT	GCA	GAG	CCC	AGC	TCT	GTG	CTG	GCC	2231
708	P	H	S	R	R	Q	R	S	L	G	P	D	A	E	P	S	S	V	L	A	727
2232	TTC	TGG	AGG	CTA	ATC	TGT	GAC	ACC	TTC	CGA	AAG	ATT	GTG	GAC	AGC	AAG	TAC	TTT	GGC	CGG	2291
728	F	W	R	L	I	C	D	T	F	R	K	I	V	D	S	K	Y	F	G	R	747
2292	GGA	ATC	ATG	ATC	GCC	ATC	CTG	GTC	AAC	ACA	CTC	AGC	ATG	GGC	ATC	GAA	TAC	CAC	GAG	CAG	2351
748	G	I	M	I	A	I	L	V	N	T	L	S	M	G	I	E	Y	H	E	Q	767
2352	CCC	GAG	GAG	CTT	ACC	AAC	GCC	CTA	GAA	ATC	AGC	AAC	ATC	GTC	TTC	ACC	AGC	CTC	TTT	GCC	2411
768	P	E	E	L	T	N	A	I	E	I	S	N	I	V	F	T	S	L	F	A	787

FIG. 6D

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2412	CTG	GAG	ATG	CTG	CTG	AAG	CTG	CTG	CTT	GTG	TAT	GGT	CCC	TTT	GGC	TAC	ATC	AAG	AAT	CCC	TAC	2471
788	L	E	M	L	L	K	L	V	Y	G	P	F	G	Y	I	K	N	P	Y		807	
2472	AAC	ATC	TTC	GAT	GGT	GTC	ATT	GTG	GTC	ATC	AGC	GTG	TGG	GAG	ATC	GTG	GGC	CAG	CAG	GGG		2531
808	N	I	F	D	G	V	I	V	V	I	S	V	W	E	I	V	G	Q	Q	G		827
2532	GGC	GGC	CTG	TCG	GTG	CTG	CGG	ACC	TTC	CGC	CTG	ATG	CGT	GTG	CTG	AAG	CTG	GTG	CGC	TTC		2591
828	G	G	L	S	V	L	R	T	F	R	L	M	R	V	L	K	L	V	R	F		847
2592	CTG	CCG	GCG	CTG	CAG	CGG	CAG	CTG	GTG	CTG	ATG	AAG	ACC	ATG	GAC	AAC	GTG	GCC	ACC		2651	
848	L	P	A	L	Q	R	Q	L	V	V	L	M	K	T	M	D	N	V	A	T		867
2652	TTC	TGC	ATG	CTG	CTT	ATG	CTC	TTC	ATC	TTC	ATC	AGC	ATG	CAT	CTG	GGC	ATG	CAT	CTC	TTC		2711
868	F	C	M	L	M	L	F	I	F	I	F	I	S	I	L	G	M	H	L	F		887
2712	GGC	TGC	AAG	TTT	GCC	TCT	GAG	CGG	GAT	GGG	GAC	ACC	CTG	CCA	GAC	CGG	AAG	AAT	TTT	GAC		2771
888	G	C	K	F	A	S	E	R	D	G	D	T	L	P	D	R	K	N	F	D		907
2772	TCC	TTG	CTC	TGG	GCC	ATC	GTC	ACT	GTC	TTT	CAG	ATC	CTG	ACC	CAG	GAG	GAC	TGG	AAC	AAA		2831
908	S	L	L	W	A	I	V	T	V	F	Q	I	L	T	Q	E	D	W	N	K		927
2832	GTC	CTC	TAC	AAT	GGT	ATG	GCC	TCC	ACG	TGG	TCC	TGG	GCG	CTT	TAT	TTC	ATT	GCC	CTC		2891	
928	V	L	Y	N	G	M	A	S	T	S	S	W	A	A	L	Y	F	I	A	L		947
2892	ATG	ACC	TTC	GGC	AAC	TAC	GTG	CTC	TTC	AAT	TTG	CTG	GTC	GCC	ATT	CTG	GTG	GAG	GGC	TTC		2951
948	M	T	F	G	N	Y	V	L	F	N	L	L	V	A	I	L	V	E	G	F		967
2952	CAG	GGC	GAG	GAA	ATC	AGC	AAA	CGG	GAA	GAT	GCG	AGT	GGA	CAG	TTA	AGC	TGT	ATT	CAG	CTG		3011
968	Q	A	E	E	I	S	K	R	E	D	A	S	G	Q	L	S	C	I	Q	L		987

FIG. 6E

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3012	CCT	GTC	GAC	TCC	CAG	GGG	GGA	GAT	GCC	AAC	AAG	TCC	GAA	TCA	GAG	CCC	GAT	TTC	TTC	TCA	3071
988	P	V	D	S	Q	G	G	D	A	N	K	S	E	S	E	P	D	F	F	S	1007
3072	CCC	AGC	CTG	GAT	GGT	GAT	GGG	GAC	AGG	AAG	TGC	TTG	GCC	TTG	GTG	TCC	CTG	GGA	GAG	3131	
1008	P	S	L	D	G	D	G	D	R	K	K	C	L	A	L	V	S	L	G	E	1027
3132	CAC	CCG	GAG	CTG	CGG	AAG	AGC	CTG	CTG	CCG	CCT	CTC	ATC	ATC	CAC	ACG	GCC	GCC	ACA	CCC	3191
1028	H	P	E	L	R	K	S	L	L	P	P	L	I	I	H	T	A	A	T	P	1047
3192	ATG	TCG	CTG	CCC	AAG	AGC	ACC	AGC	ACG	GCG	CTG	GCG	GAG	GCG	CTG	GGC	CCT	TCG	CGC	CGC	3251
1048	M	S	L	P	K	S	T	S	T	G	L	G	E	A	L	G	P	A	S	R	1067
3252	CGC	ACC	AGC	AGC	AGC	GGG	TCG	GCA	GAG	CCT	GGG	GCG	GCC	CAC	GAG	ATG	AAG	TCA	CCG	CCC	3311
1068	R	T	S	S	S	G	S	A	E	P	G	A	A	H	E	M	K	S	P	P	1087
3312	AGC	GCC	CGC	AGC	TCT	CCG	CAC	AGC	CCC	TGG	AGC	GCT	GCA	AGC	AGC	TGG	ACC	AGC	AGG	CGC	3371
1088	S	A	R	S	S	P	H	S	P	W	S	A	A	S	S	W	T	S	R	R	1107
3372	TCC	AGC	CGG	AAC	AGC	CTC	GGC	CGT	GCA	CCC	AGC	CTG	AAG	CGG	AGA	AGC	CCA	AGT	GGA	GAG	3431
1108	S	R	N	S	L	G	R	A	P	S	L	K	R	R	S	P	S	G	E	E	1127
3432	CGG	CGG	TCC	CTG	TTG	TGG	GGG	GAA	GGG	CAG	GAG	AGC	CAG	GAT	GAA	GAG	GAG	AGC	TCA	GAA	3491
1128	R	R	S	L	L	S	G	E	G	Q	E	S	Q	D	E	E	E	S	S	E	1147
3492	GAG	GAG	CGG	GCC	AGC	CCT	GGC	GGC	AGT	GAC	CAT	CGC	CAC	AGG	GGG	TCC	CTG	GAG	CGG	GAG	3551
1148	E	E	R	A	S	P	A	G	S	D	H	R	H	R	G	S	L	E	R	E	1167
3552	GCC	AAG	AGT	TCC	TTT	GAC	CTG	CCA	GAC	ACA	CTG	CAG	CTG	CCA	GGG	CTG	CAT	CGC	ACT	GCC	3611
1168	A	K	S	S	F	D	L	P	D	T	L	Q	V	P	G	L	H	R	T	A	1187

FIG. 6F

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3612	AGT	GGC	CGA	GGG	TCT	GCT	TCT	GAG	CAC	CAG	GAC	TGC	AAT	CGC	AAG	TCG	GCT	TCA	GGG	CGC	3671
1188	S	G	R	G	S	A	S	E	H	Q	D	C	N	G	K	S	A	S	G	R	1207
3672	CTG	GCC	CGG	GGC	CTG	CGG	CCT	GAT	GAC	CCC	CCA	CTG	GAT	GGG	GAT	GAC	GCC	GAT	GAC	GAG	3731
1208	L	A	R	A	L	R	P	D	D	D	P	P	L	D	G	D	D	A	D	E	1227
3732	GGC	AAC	CTG	ACC	AAA	GGG	GAA	CGG	GTC	CGG	GCC	TGG	ATC	CGA	GCC	CGA	CTC	CCT	GCC	TGC	3791
1228	G	N	L	S	K	G	E	R	V	R	A	W	I	R	A	R	L	P	A	C	1247
3792	TAC	CTC	GAG	CGA	GAC	TCC	TGG	TCA	CCC	TAC	ATC	TTC	CCT	CAG	TCC	CAG	AGG	TTC	CGC	CTC	3851
1248	Y	L	E	R	D	S	W	S	A	Y	I	F	P	P	Q	S	R	F	R	L	1267
3852	CTG	TGT	CAC	CGG	ATC	ATC	ACC	CAC	AAG	ATG	TTC	GAC	CAG	GTG	GTC	CTT	GTC	ATC	ATC	TTC	3911
1268	L	C	H	R	I	I	T	H	K	M	F	D	H	V	V	L	V	I	I	F	1287
3912	CTT	AAC	TGC	ATC	ACC	ATC	GCC	ATG	GAG	CGG	CCC	AAA	ATT	GAC	CCC	CAC	AGC	GCT	GAA	CGC	3971
1288	L	N	C	I	T	I	A	M	E	R	P	K	I	D	P	H	S	A	E	R	1307
3972	ATC	TTC	CTG	ACC	CTC	TCC	AAT	TAC	ATC	TTC	ACC	GCA	GTC	TTT	CTG	GCT	GAA	ATG	ACA	GTG	4031
1308	I	F	L	T	L	S	N	Y	I	F	T	A	V	F	L	A	E	M	T	V	1327
4032	AAG	GTG	GTG	GCA	CTG	GGC	TGG	TTC	GGG	GAG	CAG	GCG	TAC	CTG	CGG	AGC	AGT	TGG	AAC	4091	
1328	K	V	V	A	L	G	W	C	F	G	E	Q	A	Y	L	R	S	S	W	N	1347
4092	GTG	CTG	GAC	GGG	CTG	TG	GTC	CTC	ATC	TCC	GTC	ATT	GAC	ATT	CTG	GTG	TCC	ATG	GTC	TCT	4151
1348	V	L	D	G	L	L	V	L	I	S	V	I	D	I	L	V	S	M	V	S	1367
4152	GAC	AGC	GGC	ACC	AAG	ATC	CTG	GGC	ATG	CTG	AGG	GTG	CTG	CGG	CTG	CGG	ACC	CTG	CGC	4211	
1368	D	S	G	T	K	I	I	G	M	L	R	V	L	R	T	L	R	T	L	R	1387

FIG. 6G

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4212	CCG	CTC	AGG	GTG	ATC	AGC	CGG	GCG	CAG	GGG	CTG	AAG	CTG	GTG	GAG	ACG	CTG	ATG	TCC	4271	
1388	P	L	R	V	I	S	R	A	Q	G	L	K	L	V	V	E	T	L	M	S	1407
4272	TCA	CTG	AAA	CCC	ATC	GGC	AAC	ATT	GTA	GTC	ATC	TGC	TGT	GCC	TTC	TTC	ATC	ATT	TTC	GGC	4331
1408	S	L	K	P	I	G	N	I	V	V	I	C	C	A	F	F	I	I	F	G	1427
4332	ATC	TG	GGG	GTG	CAG	CTC	TTC	AAA	GGG	AAG	TTT	TTC	GTG	TGC	CAG	GGC	GAG	GAT	ACC	AGG	4391
1428	I	L	G	V	Q	L	F	K	G	K	F	F	V	C	Q	G	E	D	T	R	1447
4392	AAC	ATC	ACC	AAT	AAA	TCG	GAC	TGT	GCC	GAG	GCC	AGT	TAC	CGG	TGG	GTC	CGG	CAC	AAG	TAC	4451
1448	N	I	T	N	K	S	D	C	A	E	A	S	Y	R	W	V	R	M	K	Y	1467
4452	AAC	TTT	GAC	AAC	CTT	GGC	CAG	GCC	CTG	ATG	TCC	CTG	TTC	GTT	TTG	GCC	TCC	AAG	GAT	GGT	4511
1468	N	F	D	N	L	G	Q	A	L	M	S	L	F	V	L	A	S	K	D	G	1487
4512	TGG	GTG	GAC	ATC	ATG	TAC	GAT	GGG	CTG	GAT	GCT	GTG	GGC	GTG	GAC	CAG	CAG	CCC	ATC	ATG	4571
1488	W	V	D	I	M	Y	D	G	L	D	A	V	G	V	D	Q	Q	P	I	M	1507
4572	AAC	CAC	AAC	CCC	TGG	ATG	CTG	CTG	TAC	TTC	ATC	TGC	TTC	CTG	CTC	ATT	GTG	GCC	TTC	TTT	4631
1508	N	H	N	P	N	W	L	L	Y	F	I	S	F	L	L	I	V	A	F	F	1527
4632	GTC	CTG	AAC	ATG	TTT	GTG	GGT	GTG	GTG	GAG	AAC	TTC	CAC	AAG	TGT	AGG	CAG	CAC	CAG	4691	
1528	V	L	N	M	F	V	G	V	V	E	N	F	H	K	C	R	Q	H	Q	1547	
4692	GAG	GAA	GAG	GCC	CGG	CGG	GAG	AAG	CGC	CTA	CGA	AGA	CTG	GAG	AAA	AAG	AGA	4751			
1548	E	E	E	A	R	R	R	E	E	K	R	R	L	R	R	L	E	K	K	R	1567
4752	AGG	AAA	GCC	CAG	TGC	AAA	CCT	TAC	TAC	TCC	GAC	TAC	TCC	CGC	TTC	CGG	CTC	CTC	GTC	CAC	4811
1568	R	K	A	Q	C	K	P	Y	Y	S	D	Y	S	R	F	R	L	L	V	H	1587

FIG. 6H

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4812	CAC	TG	TGC	ACC	AGC	CAC	TAC	CTG	GAC	CTC	TTC	ATC	ACA	GGT	GTC	ATC	GGG	CTG	AAC	GTG	4871
1588	H	L	C	T	S	H	Y	L	D	L	F	I	T	G	V	I	G	L	N	V	1607
4872	GTC	ACC	ATG	GCC	ATG	GAG	CAC	TAC	CAG	CAG	CCC	CAG	ATT	CTG	GAT	GAG	GCT	CTG	AAG	ATC	4931
1608	V	T	M	A	M	E	H	Y	Q	Q	P	Q	I	L	D	E	A	L	K	I	1627
4932	TGC	AAC	TAC	ATC	TTC	ACT	GTC	ATC	TTT	GTC	TTC	GAG	TCA	GTT	TTC	AAA	CTT	GTG	GCC	TTT	4991
1628	C	N	Y	I	F	T	V	I	F	V	L	E	S	V	F	K	L	V	A	F	1647
4992	GGT	TTC	CGT	CGG	TTC	TTC	CAG	GAC	GAC	TGG	AAC	CAG	CTG	GAC	CTG	GCC	ATT	GTG	CTG	CTG	5051
1648	G	F	R	R	F	F	Q	D	R	W	N	Q	L	D	L	A	I	V	L	L	1667
5052	TCC	ATC	ATG	GGC	ATC	ACG	CTG	GAG	GAA	ATC	GAG	GTC	AAC	GCC	TCG	CTG	CCC	ATC	AAC	CCC	5111
1668	S	I	W	G	I	T	L	E	E	I	E	V	N	A	S	L	P	I	N	P	1687
5112	ACC	ATC	ATC	CGC	ATC	ATG	AGG	GTG	CTG	CGG	ATT	GCC	CGA	GTG	CTG	AAG	CTG	CTG	AAG	ATG	5171
1688	T	I	R	I	M	R	V	L	R	I	A	R	V	L	K	L	K	M	M	1707	
5172	GCT	GGC	ATG	CGG	GGG	CTG	CTG	GAC	ACG	GTG	ATG	CAG	GCC	CTG	CCC	CAG	GTG	GGG	AAC	5231	
1708	A	V	G	M	R	A	L	L	D	T	V	M	Q	A	L	P	Q	V	G	N	1727
5232	CTG	GGA	CTT	CTC	TTC	ATG	TTG	TTG	TTT	TTC	ATC	TTT	GCA	GCT	CTG	GGC	GTG	GAG	CTC	TTT	5291
1728	L	G	L	F	M	L	L	F	F	I	F	A	A	L	G	V	E	L	F	1747	
5292	GGA	GAC	CTG	GAG	TGT	GAC	GAG	ACA	CAC	CCC	TGT	GAG	GGC	CTG	GGC	GGC	CGT	CAT	GCC	ACC	5351
1748	G	D	L	E	C	D	E	T	H	P	C	E	G	L	G	R	H	A	T	F	1767
5352	CGG	AAC	TTT	GGC	ATG	GCC	TTC	CTA	ACC	CTC	TTC	CGA	GTC	TCC	ACA	GGT	GAC	AAT	TGG	AAT	5411
1768	R	N	F	G	M	A	F	L	T	F	R	V	S	T	G	D	N	W	N	1787	

FIG. 6I

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5412	GGC	ATT	ATG	AAG	GAC	ACC	CTC	CGG	GAC	TGT	GAC	CAG	TCC	ACC	TGC	TAC	AAC	ACG	GTC	5471	
1788	G	I	M	K	D	T	L	R	D	C	D	Q	E	S	T	C	Y	F	T	V	1807
5472	ATC	TCG	CCT	ATC	TAC	TTT	GTG	TCC	TTC	GTG	CTG	ACG	CAG	TTC	GTG	CTA	GTC	AAC	GTG	5531	
1808	I	S	P	I	Y	F	V	S	F	V	L	T	A	Q	F	V	L	V	N	V	1827
5532	GTG	ATC	GCC	GTG	CTG	ATG	AAG	CAC	CTG	GAG	GAG	AGC	AAG	GAG	GCC	GCC	AAG	GAG	GAG	GCC	5591
1828	V	I	A	V	L	M	K	H	L	E	E	S	N	K	E	A	K	E	E	A	1847
5592	GAG	CTA	GAG	GCT	GAG	CTG	GAG	CTG	GAG	ATG	AAG	ACC	CTC	AGC	CCC	CAG	CCC	CAC	TCG	CCA	5651
1848	E	I	E	A	E	L	E	L	E	M	K	T	L	S	P	Q	P	H	S	P	1867
5652	CTG	GGC	AGC	CCC	TTC	TTC	TGG	CCT	GGG	GTC	GAG	GGC	CCC	GAC	AGC	CCC	GAC	AGC	CCC	AAG	5711
1868	L	G	S	P	F	L	W	P	G	V	E	G	P	D	S	P	D	S	P	K	1887
5712	CCT	GGG	GCT	CTG	CAC	CCA	GCG	GCC	CAC	GCG	AGA	TCA	GCC	TCC	CAC	TTT	TCC	CTG	GAG	CAC	5771
1888	P	G	A	L	H	P	A	A	H	A	R	S	A	S	H	F	S	L	E	H	1907
5772	CCC	ACG	ATG	CAG	CCC	CAC	CCC	ACG	GAG	CTG	CCA	GGA	CCA	GAC	TTA	CTG	ACT	GTG	CGG	AAG	5831
1908	P	T	M	Q	P	H	P	T	E	L	P	G	P	D	L	L	T	V	R	K	1927
5832	TCT	GGG	GTC	AGC	CGA	ACG	CAC	TCT	CTG	CCC	AAT	GAC	AGC	TAC	ATG	TGT	CGG	CAT	GGG	AGC	5891
1928	S	G	V	S	R	T	H	S	L	P	N	D	S	Y	M	C	R	H	G	S	1947
5892	ACT	GCC	GAG	GGG	CCC	CTG	GGA	CAC	AGG	GGC	TGC	GGG	CTC	CCC	AAA	GCT	CAG	TCA	GGC	TCC	5951
1948	T	A	E	G	P	L	G	H	R	G	W	G	L	P	K	A	Q	S	G	S	1967
5952	GTC	TTC	TCC	GTT	CAC	TCC	CAG	CCA	GCA	GAT	ACC	TAC	ATC	CTG	CAG	CTT	CCC	AAA	GAT	6011	
1968	V	L	S	V	H	S	Q	P	A	D	T	S	Y	I	L	Q	L	P	K	D	1987

FIG. 6J

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6012	GCA	CCT	CAT	CTG	CTC	CAG	CCC	CAC	AGC	GCC	CCA	ACC	TGG	GGC	ACC	ATC	CCC	AAA	CTG	CCC	6071	
1988	A	P	H	I	L	Q	P	H	S	A	P	T	W	G	T	I	P	K	L	P	2007	
6072	CCA	CCA	GGA	CGC	TCC	CCT	TTG	GCT	CAG	AGG	CCA	CTC	AGG	CGC	CAG	GCA	GCA	ATA	AGG	ACT	6131	
2008	P	P	G	R	S	P	L	A	Q	R	P	L	R	R	Q	A	A	I	R	T	2027	
6132	GAC	TCC	TTG	GAC	GT ^T	CAG	GGT	CTG	GGC	AGC	CGG	ACC	GGC	CTG	CTG	GCA	GAG	GTG	AGT	GGG	6191	
2028	D	S	L	D	V	Q	G	L	G	S	R	E	D	L	L	A	E	V	S	G	2047	
6192	CCC	TCC	CCG	CCC	CTG	GCC	CGG	GGC	TAC	TCT	TTC	TGG	GGC	CAG	TCA	AGT	ACC	CAG	GCA	CAG	6251	
2048	P	S	P	P	L	A	R	A	Y	S	F	W	G	Q	S	S	T	Q	A	Q	2067	
6252	CAG	CAC	TCC	CGC	AGC	CAC	AGC	AAG	AAG	ATC	TCC	AAG	CAC	ATG	ACC	CCG	CCA	GCC	CCT	TGC	CCA	6311
2068	Q	H	S	R	S	H	S	K	I	S	K	H	M	T	P	P	A	P	C	P	2087	
6312	GGC	CCA	GAA	CCC	AAC	TGG	GGC	AAG	GGC	CCT	CCA	GAG	ACC	AGA	AGC	AGC	TTA	GAG	TTG	GAC	6371	
2088	G	P	E	P	N	W	G	K	G	P	P	E	T	R	S	S	L	E	L	D	2107	
6372	ACG	GAG	CTG	AGC	TGG	ATT	TCA	GGA	GAC	CTC	CTG	CCC	CCT	GGC	GGC	CAG	GAG	CCC	CCA	6431		
2108	T	E	L	S	W	I	S	G	D	L	L	P	P	G	G	Q	E	E	P	P	2127	
6432	TCC	CCA	CGG	GAC	CTG	AAG	AAG	TGC	TAC	AGC	GTG	GAG	GCC	CAG	AGC	TGC	CAG	CGG	CCT	6491		
2128	S	P	R	D	L	K	K	C	Y	S	V	E	A	Q	S	C	Q	R	R	P	2147	
6492	ACG	TCC	TGG	CTG	GAT	GAG	CAG	AGG	AGA	CAC	TCT	ATC	GCC	GTC	AGC	TGC	CTG	GAC	AGC	GGC	6551	
2148	T	S	W	L	D	E	Q	R	R	H	S	I	A	V	S	C	L	D	S	G	2167	
6552	TCC	CAA	CCC	CAC	CTG	GGC	ACA	GAC	CCC	TCT	AAC	CTT	GGG	GGC	CAG	CCT	CTT	GGG	GGG	CCT	6611	
2168	S	Q	P	H	L	G	T	D	P	S	N	L	G	Q	P	L	G	G	P	2187		

FIG. 6K

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6612	GGG	AGC	CGG	CCC	AAG	AAA	CTC	AGC	CCG	CCT	AGT	ATC	ACC	ATA	GAC	CCC	GAG	AGC	6671		
2188	G	S	R	P	K	K	K	L	S	P	P	S	I	T	I	D	P	P	E	S	2207
6672	CAA	GGT	CCT	CGG	ACC	CCG	CCC	AGC	CCT	GGT	ATC	TGC	CTC	CGG	AGG	AGG	GCT	CCG	TCC	AGC	6731
2208	Q	G	P	R	T	P	P	S	P	G	I	C	L	R	R	A	P	S	S	S	2227
6732	GAC	TCC	AAG	GAT	CCC	TTC	GCC	TCT	GGC	CCC	CCT	GAC	AGC	ATG	GCT	GCC	TCG	CCC	TCC	CCA	6791
2228	D	S	K	D	P	L	A	S	G	P	P	D	S	M	A	A	S	P	S	P	2247
6792	AAG	AAA	GAT	GTG	CTG	AGT	CTC	TCC	GGT	TTC	TCT	GAC	CCA	GCA	GAC	CTG	GAC	CCC	TGA	6851	
2248	K	K	D	V	L	S	L	S	G	L	S	D	P	A	D	L	D	P	-	2267	
6852	gtcctgccccactttccactcacccatgtgc																			6892	

FIG. 6L

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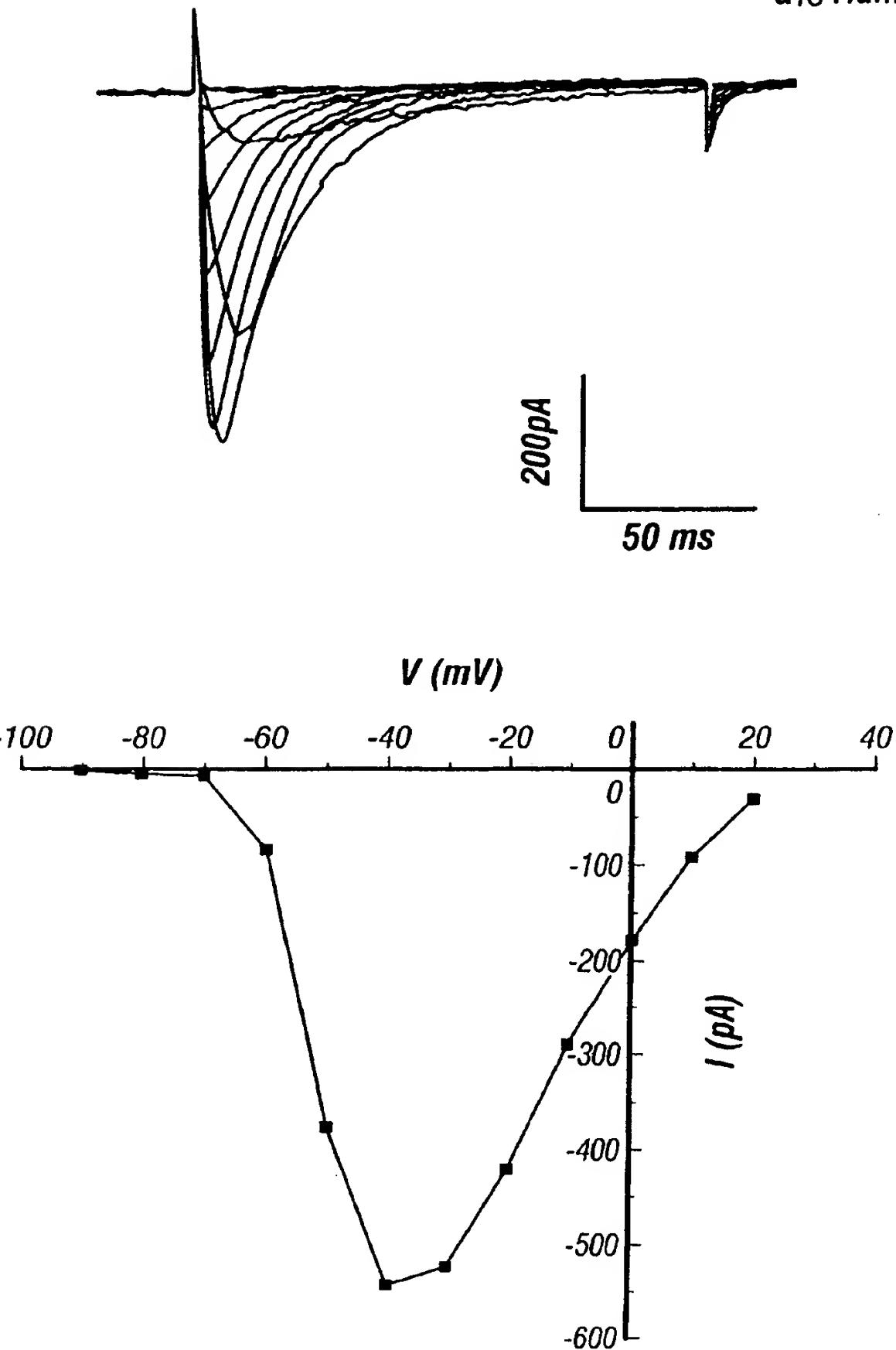
 α_1G Human 2mM Ca^{2+} 

FIG. 7

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COMPARISON OF P-REGIONS

	I	II	III	IV	(SEQ ID NOS:38-43)
LAASE	E GWVYV	QIITQ	E GWTDF	RCLTG	E DWNDI
LAASQ	E GWVYV	QIITQ	E GWTDV	RSVTG	E DWNDI
EASSQ	E GWVFL	QIITQ	E GWVDF	RIVTG	E DWNKI
QCITM	E GWTDV	QIITG	E DWNSV	RCATG	E AWQDI
QVITL	E GWVDI	QIITQ	E DWNKV	RVSTG	D NWNGI
RLMTQ	D FWEVL	RVLCG	E WIETM	QITTS	A GWDGL

FIG. 8